

March 19, 2004

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572 28 Davis Avenue Poughkeepsie, N.Y. 12603

Subject:

Serial No. 10/782,671 02/19/04

Charles C. Lin et al.

MAGNETIC ASSIST READ TRACK-WIDTH DEFINITION FOR A LEAD OVERLAY TOP SPIN-VALVE GMR HEAD

## INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56.

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March  $2\sqrt{\phantom{0}}$ , 2004.

Stephen B. Ackerman, Reg.# 37761

Signature/Date

HT-01-018B

- U.S. Patent 6,201,669 to Kakihara, "Magnetoresistive Element and Its Manufacturing Method," discusses a spin-valve type read element in which the lead layers are formed both beneath and on the sides of the element.
- U.S. Patent 5,869,963 to Saito et al., "Magnetoresistive Sensor and Head," discusses a spin valve sensor formed of multiple spin valve laminates and using PtMn as the antiferromagnetic layer which allows lower annealing temperatures.
- U.S. Patent 5,705,973 to Yuan et al., "Bias-Free Symmetric Dual Spin Valve Giant Magnetoresistance Transducer," discusses a dual spin valve formation with improved biasing of the free layer by forming pinned layers both above and below it.
- U.S. Patent 5,828,530 to Gill et al., "Orthogonal Spin Valve Sensor with Reduced Net Field," discusses a spin valve sensor antisymmetrically located between upper and lower shield layers so that image currents in said shield layers cancel the effects of fields produced by the sense current within the sensor, which latter fields have the undesiraable effect of stiffening the magnetic moment of the free layer.

Sincerely,

Stephen B. Ackerman,

Req. No. 37761

... 1 af 1

Form PTO-1	Orm PTO-1449  DOCTOR HUMCH (CORONA)  HT-01-01-02-0-1-01-02-0-1-01-02-0-1-01-02-0-1-01-02-0-1-01-02-0-1-01-02-0-1-01-02-0-1-01-02-0-0-1-02-0-1-02-0-1-02-0-1-02-0-1-02-0-1-02-0-1-02-0-1-02-0-1-02-0-0-1-02-0-1-02-0-0-1-02-0-0-1-02-0-0-1-02-0-0-1-02-0-0-0-0																		
QUE O	PHEORIHATION DISCLOSURE CITATION HT-01-018														B	10	1782,	67	
	AN APPLICATION Charles															in	eto	J.	
MAR 2 9 1	2 9 2004 [Usissiveral shouls il nacessary]															ar	איזן גיץ מחס		
- A	10.	4.							11	o' r	) A T	LL F		MENTS	04				
EXTRINEU MAK 5 2	0	— жи		.~.				1 0.77	Т	. 3. 1	- A 10		7000	WENTS	Τ				
MAJIYT . EXTRINEL	-		<u> </u>	1	<del>~~</del>	182	, 	DATE				, mr			cu		MRCOTT	* 127	MO DATE
<del></del>	6	201669					9	3 13/01	1	Cak	ih	avo	ara			0	313	313 12/9/98	
	5	8	6	9	9	6	3	29/99		Sai	to	e	et al.			4	252	9/3/97	
	1	1	1				1	1/6/98	١.	Yua	<i>_</i>	et	ما		338 3		32R	8	26/96
	1	ļ	1	1		Į į	1	10/27/9	ł	Gil		+	٠ .	<del></del>	36		113	5	116/97
		9	_	_	Ť	-		1-10-9		<u> </u>	• (					<u> </u>			10117
	-		-		_	-	_					· • • • • • • • • • • • • • • • • • • •							
	-	-	-	-	-	-	-		-			<del></del>			<del> </del>				
			-	-	-	-	-						<del></del>	<del> </del>	- <del> </del>				<del></del>
	-	-	-	-	-	-	-		-						-				
	-	-	-	-	-				-										<u> </u>
		-	-	-	-	-	-		-									<u> </u>	····
	FOREIGN PATENT DOCUMENTS															··			
	DOCUMENT NUMBER DATE COUNTRY													cus	s	SUBCLASS	Yean	station	
						-								<del> </del>			YES	100	
		_	_			 									_				
			_																
					-	-													
	Ll		L	<b>L</b>	l	ئــا			OTH	IER I	DOC	UME	NTS	(Induding A	πος. Τυ	o. Da	la, Partinon I	pagos, l	EIC.)
		-						<del></del>											
														·					
												γ						<del></del>	
<b>EXAMPLE</b> R	CAMMER											DATE CONCIDENCED							
										······			<u></u>			<del></del>	,	<del></del>	<del></del>